FACT-FILE

# Degrees Awarded in 1978

## Public institutions

| | Bachelor's degrees | | Master's degrees | | Doctor's degrees | |
|---|---|---|---|---|---|---|
| | Men | Women | Men | Women | Men | Women |
| Agriculture, natural resources | 16,650 | 5,468 | 3,157 | 723 | 898 | 59 |
| Architecture, environmental design | 5,612 | 1,651 | 1,493 | 485 | 37 | 11 |
| Area Studies | 526 | 788 | 283 | 247 | 49 | 18 |
| Biological Sciences | 20,812 | 12,567 | 3,546 | 1,830 | 1,908 | 547 |
| Business and Management | 77,611 | 29,737 | 18,438 | 3,832 | 536 | 52 |
| Communications | 9,827 | 8,833 | 1,025 | 1,021 | 97 | 42 |
| Computer and Information Sciences | 4,146 | 1,498 | 1,318 | 313 | 119 | 11 |
| Education | 30,384 | 77,243 | 29,337 | 59,640 | 3,342 | 2,077 |
| Engineering | 38,382 | 2,541 | 9,870 | 509 | 1,470 | 36 |
| Fine and Applied Arts | 9,589 | 15,048 | 2,802 | 2,980 | 266 | 138 |
| Foreign Languages | 1,965 | 6,140 | 511 | 1,269 | 164 | 185 |
| Health Professions | 8,316 | 31,513 | 2,575 | 6,689 | 280 | 145 |
| Home Economics | 685 | 14,444 | 165 | 2,057 | 50 | 135 |
| Interdisciplinary Studies | 13,804 | 11,208 | 1,358 | 1,010 | 163 | 73 |
| Law | 175 | 77 | 274 | 41 | 5 | — |
| Letters | 9,997 | 15,615 | 2,583 | 4,318 | 696 | 493 |
| Library Science | 52 | 534 | 973 | 4,041 | 24 | 17 |
| Mathematics | 4,617 | 3,162 | 1,655 | 941 | 409 | 79 |
| Military Sciences | 370 | 8 | 44 | 1 | — | — |
| Physical Sciences | 11,588 | 2,849 | 3,411 | 694 | 1,894 | 195 |
| Psychology | 12,143 | 16,555 | 2,350 | 2,269 | 977 | 520 |
| Public Affairs and Services | 13,828 | 14,317 | 5,989 | 5,806 | 88 | 49 |
| Social Sciences | 41,748 | 28,554 | 6,049 | 2,969 | 1,610 | 504 |
| Theology | 6 | — | — | — | 1 | — |

## Private institutions

| | Bachelor's degrees | | Master's degrees | | Doctor's degrees | |
|---|---|---|---|---|---|---|
| | Men | Women | Men | Women | Men | Women |
| Agriculture and Natural Resources | 480 | 126 | 123 | 33 | 11 | 3 |
| Architecture and Environmental Design | 1,455 | 548 | 816 | 327 | 20 | 5 |
| Area Studies | 629 | 926 | 200 | 195 | 51 | 27 |
| Biological Sciences | 11,178 | 7,656 | 875 | 600 | 604 | 254 |
| Business and Management | 41,059 | 14,867 | 22,007 | 4,384 | 257 | 20 |
| Communications | 3,653 | 3,088 | 648 | 603 | 41 | 11 |
| Computer and Information Sciences | 1,214 | 366 | 1,153 | 254 | 62 | 4 |
| Education | 7,516 | 22,599 | 9,072 | 20,908 | 1,288 | 879 |
| Engineering | 13,902 | 1,184 | 5,674 | 356 | 913 | 21 |
| Fine and Applied Arts | 6,007 | 10,389 | 1,525 | 1,729 | 182 | 122 |
| Foreign Languages | 1,140 | 3,763 | 290 | 671 | 130 | 170 |
| Health Professions | 3,358 | 16,844 | 1,725 | 3,494 | 122 | 107 |
| Home Economics | 100 | 2,508 | 47 | 344 | 8 | 10 |
| Interdisciplinary Studies | 5,210 | 5,837 | 1,448 | 671 | 42 | 23 |
| Law | 291 | 110 | 1,251 | 220 | 29 | 5 |
| Letters | 9,128 | 9,993 | 1,260 | 1,901 | 566 | 321 |
| Library Science | 28 | 79 | 413 | 1,508 | 19 | 7 |
| Mathematics | 2,838 | 2,084 | 578 | 209 | 272 | 45 |
| Military Sciences | 7 | 1 | — | — | — | — |
| Physical Sciences | 6,600 | 2,138 | 1,219 | 252 | 931 | 117 |
| Psychology | 6,374 | 9,985 | 1,581 | 1,994 | 649 | 451 |
| Public Affairs and Services | 5,180 | 4,360 | 4,538 | 3,858 | 179 | 79 |
| Social Sciences | 26,078 | 17,804 | 3,745 | 1,897 | 1,103 | 366 |
| Theology | 4,808 | 1,530 | 2,314 | 1,015 | 1,105 | 54 |

## All institutions

| | Bachelor's degrees | | Master's degrees | | Doctor's degrees | |
|---|---|---|---|---|---|---|
| | Men | Women | Men | Women | Men | Women |
| Agriculture and Natural Resources | 17,130 | 5,594 | 3,280 | 756 | 909 | 62 |
| Architecture and Environmental Design | 7,067 | 2,199 | 2,309 | 812 | 57 | 16 |
| Area Studies | 1,155 | 1,714 | 483 | 442 | 100 | 45 |
| Biological Sciences | 31,990 | 20,223 | 4,421 | 2,430 | 2,512 | 801 |
| Business and Management | 118,670 | 44,604 | 40,445 | 8,216 | 795 | 72 |
| Communications | 13,480 | 11,921 | 1,673 | 1,624 | 138 | 53 |
| Computer and Information Sciences | 5,360 | 1,864 | 2,471 | 567 | 181 | 15 |
| Education | 37,900 | 99,842 | 38,409 | 80,548 | 4,630 | 2,956 |
| Engineering | 52,284 | 3,725 | 15,544 | 865 | 2,383 | 57 |
| Fine and Applied Arts | 15,596 | 25,437 | 4,327 | 4,709 | 448 | 260 |
| Foreign Languages | 3,105 | 6,903 | 801 | 1,940 | 294 | 355 |
| Health Professions | 11,674 | 48,357 | 4,300 | 10,183 | 402 | 252 |
| Home Economics | 785 | 16,952 | 212 | 2,401 | 58 | 145 |
| Interdisciplinary Studies | 19,014 | 17,045 | 2,806 | 1,681 | 205 | 96 |
| Law | 466 | 187 | 1,525 | 261 | 34 | 5 |
| Letters | 19,125 | 25,608 | 3,843 | 6,219 | 1,262 | 814 |
| Library Science | 80 | 613 | 1,386 | 5,549 | 43 | 24 |
| Mathematics | 7,455 | 5,246 | 2,233 | 1,150 | 681 | 124 |
| Military Sciences | 377 | 9 | 44 | 1 | — | — |
| Physical Sciences | 18,188 | 4,987 | 4,630 | 946 | 2,825 | 312 |
| Psychology | 18,517 | 26,540 | 3,931 | 4,263 | 1,626 | 971 |
| Public Affairs and Services | 19,008 | 18,677 | 10,527 | 9,664 | 267 | 128 |
| Social Sciences | 67,826 | 46,358 | 9,794 | 4,866 | 2,713 | 870 |
| Theology | 4,814 | 1,530 | 2,314 | 1,015 | 1,106 | 54 |

## First-professional degrees

| | Public institutions | | Private institutions | | All institutions | |
|---|---|---|---|---|---|---|
| | Men | Women | Men | Women | Men | Women |
| Chiropractic | — | — | 1,495 | 166 | 1,495 | 166 |
| Dentistry | 2,761 | 351 | 1,891 | 235 | 4,652 | 586 |
| Law, general | 9,870 | 3,418 | 15,752 | 5,576 | 25,622 | 8,994 |
| Medicine | 6,934 | 1,799 | 4,365 | 1,301 | 11,299 | 3,100 |
| Optometry | 272 | 68 | 609 | 65 | 881 | 133 |
| Osteopathic Medicine | 181 | 38 | 645 | 80 | 826 | 118 |
| Pharmacy | 139 | 80 | 243 | 85 | 382 | 165 |
| Podiatry, Podiatric Medicine | — | — | 517 | 26 | 517 | 26 |
| Theological professions | — | — | 5,645 | 722 | 5,645 | 722 |
| Veterinary Medicine | 1,147 | 350 | 87 | 51 | 1,234 | 401 |

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## News Summary

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**Economic factors** are blamed for a drop in the number of students applying to graduate school at some universities. Story on Page 5.

**The firing** of a faculty member at Central Washington University is seen as a test of the tenure system. Story on Page 3.

**The Supreme Court** won't review President Carter's order that Iranian students report their status to immigration officials. Story on Page 11.

**A historian** from the University of Michigan has been named the new Archivist of the United States. Story on Page 11.

**Veterans** attending college on the GI Bill would get a 10-per-cent increase in benefits under a bill pending in the House of Representatives. Story on Page 13.

**Land iguanas**, like the one above, are among the animals scientists study in the "laboratory of evolution," the Galapagos islands. Story on Page 16.

**Widespread student protests** in South Korea have led to a military takeover of the country and the closing of all colleges and universities. Story on Page 15.

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# *Colleges Urged to Help Schools Improve Students' Preparation*

## A few cooperative programs under way; Carnegie foundation plans study of relationships

By Beverly T. Watkins

Many academic leaders are urging colleges to find new ways to help the public schools see that their graduates are better prepared for higher education.

"We cannot have excellence in higher education if we do not have excellence in school," says Ernest L. Boyer, president of the Carnegie Foundation for the Advancement of Teaching.

"The dividing line between schools and universities in this country so often seems more like a Grand Canyon than a grade crossing," says Richard W. Lyman, president of Stanford University.

Mr. Boyer's foundation is planning a two-year study of the relationship between secondary education and higher education to see what can be done to resolve the problem of inadequately prepared students.

Some colleges and universities have already developed cooperative programs with public schools, sometimes under pressure from the courts or state legislatures. For example:

▶ In Boston, higher-education institutions are paired with local elementary and secondary schools under court order to work together as part of the effort to desegregate public education in that city.

▶ In California, the public systems of higher education are working with the schools at the request of the state legislature.

CHRONICLE PHOTOGRAPH BY JOHN C. PHILLIPS

*Ernest L. Boyer*

▶ The University of Wisconsin at Parkside has launched a cooperative program for minority students in the junior high schools.

▶ The Graduate School of Education at Harvard University plans to establish a center where its faculty members can work with school principals and teachers to solve education problems.

University schools of education have long been concerned with the elementary and secondary schools and particularly with teacher training. But some higher-education leaders say that the times call for something more than a business-as-usual approach to the problems of the public schools.

"In recent years the relationship between the colleges and schools has been essentially ignored," Mr. Boyer, former U. S. Commissioner of Education, told a higher-education conference in Washington.

"Presidents and deans refuse to talk to principals and district superintendents. College faculty refuse to meet with their counterparts in the public schools. And curriculum reforms at each level are planned in total isolation."

"Clearly, the patterns of communication that have existed between higher education and elementary and secondary education, between the school district and the campus, and between the state superintendent's office and the dean's office must change," says Allan W. Ostar, executive director of the American Association of

*Continued on Page 14, Column 1*

# *SAT Scores Don't Measure Scholastic Aptitude, Can Be Influenced by 'Coaching,' Report Says*

By Cheryl M. Fields

CAMBRIDGE, MASS.

Scores on the Scholastic Aptitude Test can be influenced much more by coaching than its creators have acknowledged, and the test is more a measure of previous academic achievement than of innate intellectual capacity, say two researchers at the Harvard University medical school.

Contrary to statements by the Educational Testing Service, which publishes the test, and the College Board, which administers it, "students can raise their scores with training, the scores are not a good predictor of college performance, and the test does not measure 'capacity' to learn," write Warner V. Slack, associate professor of medicine, and Douglas Porter, associate in medicine, in the May issue of the *Harvard Educational Review*.

They base their conclusions on a review of the scientific literature on the "coachability" and "predictive validity" of the test, which is taken by an estimated one million high-school students each year.

"Educational Testing Service's technical and promotional publications are characterized by omissions and misleading statements," the researchers assert. The company has "enhanced [its] product's image at the risk of the students' self-esteem."

The researchers contend that E.T.S. has ignored studies, including at least one partially supported by the College Board, that showed that students could raise their scores substantially on both the verbal and mathematics sections of the S.A.T. through various kinds of instructional programs.

### Increases of Less than 10 Points

In 1968, E.T.S. asserted that studies had indicated that students could expect "average increases of less than 10 points on a 600-point scale" as a result of coaching. The Harvard researchers say other studies, results of which were available in 1968, indicated that instruction could improve students' scores by larger amounts under certain circumstances.

They noted that many of the studies cited by E.T.S. took into account coaching or instructional programs of short duration. The testing agency seldom cited two other studies of longer programs that had reported substantially better results, the researchers say.

Some of the best-known coaching courses for the S.A.T., such as those run by the Stanley H. Kaplan Educational Centers, last several weeks or months.

The Harvard researchers note that studies in 1965 showed that high-school graduates, who had spent seven months in special preparatory schools to improve their chances for admission to college, increased their S.A.T. scores by an average of 58 points on the verbal section of the test and 79 points on the math section.

Even though those studies were partly financed by the College Board, the authors say, the board's booklets for consumers don't mention them.

Alice J. Irby, a vice-president of the Educational Testing Service, denies the implication that the testers had withheld or played down important data. "A couple of

*Continued on Page 5, Column 1*

# NOTE

ONLY THE FOLLOWING PAGES OF THIS PUBLICATION

HAVE BEEN FILMED

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